**Safety Evaluation by the DOE Regulatory Unit
of Proposed Authorization Basis Amendment Request
ABAR-W375-00-00007
to the Safety Requirements Document
for the River Protection Project
(Contract DE-AC27-96RL13308)**

1. Introduction

The River Protection Project (RPP) Contract[1] with BNFL Inc. (the Contractor), required the Contractor to design, construct, operate, and deactivate a radioactive waste vitrification facility at the Hanford Site. An element of the authorization basis, required by the Contract, is the Safety Requirements Document (SRD). The SRD contains the approved set of radiological, nuclear, and process safety standards and requirements, which if implemented, provide adequate protection of workers, the public, and the environment against the hazards associated with the operation of the facility. By letter dated June 6, 2000,[2] the Contractor submitted a proposed amendment to SRD Safety Criteria (SC) 7.6-1 through 7.6-4 to revise the implementing standards for conduct of maintenance from various sections of the Integrated Safety Management Plan (ISMP) to a tailored version of the International Atomic Energy Agency (IAEA) standard, IAEA 50-SG-07, *Maintenance of Nuclear Power Plants.* This change was proposed to resolve a condition (Condition 13) in RL/REG-98-20, *DOE Regulatory Unit Evaluation of BNFL Inc. Safety Requirements Document*, *Revision 1A*. Condition 13 required the Contractor, before Authorization for Construction, to provide adequate subordinate standards for operational testing and maintenance.

2. Background

The Contract required the Contractor to utilize DOE/RL-96-0006, *Top-Level Radiological, Nuclear, and Process Safety Standards and Principles for the RPP Waste Treatment Plant Contractor*, during its development of the SRD. The RU conditionally approved Revision 2 of the Contractor's SRD in RL/REG-98-20, dated December 2, 1998. This approval included an evaluation of the conditions identified during the RU review[3] of Revision 0 of the SRD and included a number of actions required before the conditions could be closed. Condition 13 concerned Top-Level Standard 4.3.5.1, "Operational Testing, Inspection, and Maintenance" of DOE/RL-96-0006. Condition 13 documented that there were insufficient implementing standards provided for the operational testing, inspection, and maintenance principle. The Contractor was required to revise the SRD (Safety Criteria 7.6-2 and 7.6-3) to provide adequate subordinate standards for operational testing and maintenance before the RU could approve the Construction Authorization Request.

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[1] Contract No. DE-AC27-96RL13308, between DOE and BNFL Inc., dated August 24, 1998.
[2] Letter 00-RU-0438, from A. J. Dobson, BNFL Inc., to D. C. Gibbs, "Transmittal of ABAR-W375-00-00007, Identification of an Implementing Standard for Maintenance against the Safety Requirements Document," CCN 013705, dated June 6, 2000.
[3] RL/REG-98-01, *DOE Regulatory Unit Evaluation Report of the BNFL Inc. Safety Requirements Document*, Rev. 0, March 1998.

The proposed amendment was intended to resolve Condition 13 through the implementation of a tailored version of standard IAEA 50-SG-07. During review of the proposed standard, the RU compared the proposed standard to the SRD SC 7.6-1 through 7.6-4, Revision 5 of the Quality Assurance Program and Implementation Plan (QAPIP), and Top-Level Standard 4.3.5.1 of DOE/RL-96-0006 to determine if the standard was consistent with the SC and to ensure that it would not adversely affect the health and safety of the public or workers, or have a detrimental effect on the environment.

3. Evaluation

The comparisons described above are in the attached Table 1.

From this evaluation, the reviewers identified that the proposed tailored version of the IAEA standard, as submitted, did not appropriately address the requirements described above. Specifically, items 3.b, 3.c, 3.g, 3.i, 4.l, 4.m, 4.o, 4.p, 7, and 8 of Table 1 document the portions of the requirements that were not sufficiently addressed in the proposed standard. For example, the proposed standard did not require written procedures to control the conduct of maintenance, did not adequately address the use of performance indicators and criteria, or address managing the maintenance backlog.

4. Conclusion

Based on the considerations described above, the RU has concluded that the proposed amendment to the SRD does not comply with applicable requirements. As described in Table 1, additional tailoring of the proposed IAEA standard is required to address compliance with applicable requirements. Accordingly, the proposed changes to the SRD are not approved.

5. References

DOE/RL-96-0006, *Top-Level Radiological, Nuclear, and Process Safety Standards and Principals for the RPP Waste Treatment Plant Contractor*, Rev. 1, U.S. Department of Energy, Richland Operations Office, 1998.

IAEA 50-SG-07, *Maintenance of Nuclear Power Plants*, International Atomic Energy Agency, as amended.

RL/REG-98-20, *DOE Regulatory Unit Evaluation of BNFL Inc. Safety Requirements Document, Revision 1A*, Rev. 1, U.S. Department of Energy, Richland Operations Office, 1998.

Safety Requirements Document, BNFL-5193-SRD-01, Rev. 2, BNFL, Inc., Richland Washington, 1999.

TWRS-P Integrated Safety Management Plan, BNFL-5193-ISP-01, Rev. 4b, BNFL Inc., Richland Washington, 1999.

Attachment:
Table 1, Comparison of the Proposed Tailored IAEA Standard to the Applicable Requirements

Table 1
Comparison of the Proposed Tailored IAEA Standard to the Applicable Requirements

Item No.	SC/*Requirement or* Reference	*Requirement*	*Evaluation*
1.	Safety Criterion 7.6-1	A maintenance program for the facility shall be developed and implemented using a tailored approach.	There are no statements in the proposed Implementing Standard for Maintenance that the maintenance program "shall be developed and implemented using a tailored approach." However, ISMP, Section 4.2.1, states "Engineered features include SSCs that provide for public and worker safety. The design, fabrication, construction, installation, testing, operation, maintenance, and quality assurance requirements for engineered features are tailored by the classification process discussed in ISMP Section 1.3.10, 'Classification of Structures, Systems, and Components.'" Section 1.3.10 states "...the TWRS-P Project provides a consistent, project-wide approach for the classification of the TWRS-P Facility SSCs based on their importance to controlling normal releases and accident prevention and mitigation. This approach ensures that SSCs are designed, constructed, fabricated, installed, tested, operated, and maintained to quality standards commensurate with the importance of the function to be performed." It appears that the maintenance program is tailored by the classification process. In addition, the proposed standard requires in Paragraph 201 that the maintenance program be prepared for SSCs important to safety. Therefore the maintenance program will be prepared for the SSCs specific to the plant that have been tailored. Also, Paragraph 207 requires the operating organization to "obtain and evaluate timely and sufficient information on maintenance needs from the designers, manufactures, and other operating organizations." These inputs should result in additional "tailoring" of the maintenance program to accommodate the maintenance needs identified by the design organization, manufactures, and other organizations. Since there are no requirements for the maintenance program to be "tailored" beyond the classification of SSCs, there is no requirement for the proposed Implementing Standard for Maintenance to include a statement regarding tailoring.

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			The requirement of Safety Criterion 7.6.1 is addressed.
2.	Safety Criterion 7.6-2	The maintenance program shall contain provisions sufficient to preserve, predict, and restore the availability, operability, and reliability of structures, systems, and components designated as Important to Safety.	Paragraph 102 states "Effective maintenance is essential for the safe operation of a facility. It not only ensures that the level of reliability and effectiveness of all plant structures, systems, and components having a bearing on safety remains in accordance with the design assumptions and intent, but also that the safety status of the plant is not adversely affected after commencement of operations." This is a true statement, but it is only a statement of fact. There are no commitments contained in Paragraph 102. Paragraph 201 states that "....the operating organization shall prepare a maintenance program for structures, systems, and components important to safety." Paragraph 202 states "The maintenance program covers all preventive and remedial measures both administrative and technical, necessary to perform maintenance activities satisfactorily. The range of activities includes servicing, overhaul, repair, and replacement of parts and, as appropriate, testing, calibration and inspection (including in-service inspection). It may also include modifications to structures, systems, and components." Paragraph 203 states in part "The operating organization is responsible for establishing a program for preventive maintenance and remedial maintenance that will achieve design performance throughout the operational life of the plant." Paragraph 212 states in part "The frequency and extent of preventive maintenance shall be such as to ensure that the level of the reliability and effectiveness of the plant structures, systems and components important to safety remains in accord with the design assumptions and intent, and the safety status of the plant has not been adversely affected during the period since the commencement of operation." These four paragraphs (201, 202, 203, and 212) describe a maintenance program that will preserve and restore the availability, operability, and reliability of SSCs important to safety, but they do not address the requirement to predict the need for maintenance. Paragraph 214 states in part "The frequency and extent of preventive maintenance may be affected by the utilization of predictive maintenance

Item No.	SC/*Requirement or* Reference	*Requirement*	*Evaluation*
			methods. These methods are based on the surveillance of carefully selected parameters and a special analysis of the results. This analysis may be used to justify postponement of remedial actions or anticipation of scheduled maintenance." The requirements of Safety Criterion 7.6-2 are addressed.
3.	Safety Criterion 7.6-3	The maintenance program for Important to Safety structures, systems, and components shall clearly define:	
3.a		(1) The important-to-safety structures, systems, and components that comprise the facility.	Paragraph 201 states that "....the operating organization shall prepare a maintenance program for structures, systems, and components important to safety." This requirement is addressed.
3.b		(2) The requirements of the maintenance program that are derived from the program elements listed in Safety Criterion 7.6-4	See the evaluation of Safety Criterion 7.6-4 below. Some elements of Safety Criterion 7.5-4 are not adequately defined by the proposed implementing standard IAES 50-SG-07.
3.c		(3) The management systems used for those activities, including the means for monitoring and measuring the effectiveness of the program and the management of maintenance backlog.	The management systems for maintenance activities are addressed in Section 4.0, "Administrative Controls," of the proposed Implementing Standard for Maintenance. Paragraph 401 states "In order to implement the maintenance program and achieve the objective of safe reliable operation, plant management shall establish the required administrative controls." Paragraph 403 lists "... some of the administrative controls and procedures to be taken into account when developing documents applicable to maintenance." Paragraph 405 states in part "The operating organization shall require plant management to prepare instructions that give detailed directions and controls required for carrying out maintenance." Paragraphs 401, 403, and 405 commit the Contractor to having management systems for maintenance activities and provides a list of some of the administrative controls and procedures to be taken

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			into account, but the requirement to define the management systems is not provided. Section 11.0 of the proposed Implementing Standard for Maintenance includes the requirements for monitoring and measuring the effectiveness of the maintenance program. Paragraph 1101 states that "The operation organization shall establish a program of surveillance, review and audit of maintenance in order to ensure that the maintenance program meets its purpose and has been implemented in accordance with the design intent, with regulatory codes and requirements and with the operating organization's own procedures and policies." Paragraph 1102 states "Verification inspections of maintenance activities shall be carried out by appropriately qualified individuals..." Paragraph 1103 states "The operating organization shall establish a program for reviewing the maintenance activities." Paragraph 1107 states "The operating organization shall establish an audit program for the maintenance activity." Paragraph 1107 also states "The audits will determine whether or not the maintenance activity is being conducted in compliance with regulatory requirements and the operating organization's policies and quality assurance program." Paragraphs 1101, 1102, 1103, and 1107 define the objectives and details of the surveillance, review, and audit programs that provide for monitoring and measuring the effectiveness of the maintenance program. The Contractor's proposed Implementing Standard for Maintenance is adequate in the area of monitoring and measuring the effectiveness of the maintenance program. However, it does not define or commit to define a program for managing the maintenance backlog.
3.d		(4) The assignment of responsibilities and authority for all levels of the maintenance organization.	Paragraph 301 states in part "The plant management shall establish a maintenance group on site to implement the maintenance program. "Responsibility for implementing the program shall be delegated to an individual, designated in this guide as maintenance superintendent." Paragraph 304 states in part "The responsibilities of the maintenance group management and supervisory staff shall be defined in writing by the plant management." Paragraphs 301 and 304 commit the Contractor

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			to delegate the responsibility for implementing the maintenance program to one individual and to defining in writing the responsibilities of management and supervisory staff. The detailed definitions of the responsibilities for the maintenance superintendent, section heads, and supervisors provided in Paragraph 305 are described as being "responsibilities normally included" for these positions. The Contractor's proposed Implementing Standard for Maintenance is adequate in this area.
3.e		(5) Mechanisms to feedback such relevant information as trend analysis and instrumentation performance/reliability data in order to identify necessary program modifications.	Paragraph 903 states "The operating organization shall arrange for: (1) Collecting, evaluating, classifying and evaluating abnormal events or findings, in order to detect precursors, common mode failure mechanisms, deficiency of equipment or personnel. (2) Transferring to the design group the experience of actual maintenance in order to enable future designers to improve plant features which have a bearing on the maintenance activity, such as ease of access, ease of disassembly and reassembly, and implementation of the ALARA principle. (3) Utilizing maintenance experience in the training of maintenance personnel. (4) Validating reliability data collection to be used for probabilistic evaluations and for the technical specification of new components. (5) Ensuring retrievability of data and proper transfer of the relevant information to the appropriate persons or organizations." This meets the requirement to define the feedback mechanisms.
3.f		(6) Provisions for identifying and evaluating possible component, system design, occupational safety and health, or other relevant problems and implementation of a self-assessment program.	See the evaluation of Section 11.0 in response to item (3) above. The description of the maintenance review program comes closest to describing a self-assessment of the maintenance program. Paragraph 1105 states " The review program shall examine the maintenance program for features such as: (1) Adequacy of the preventive maintenance schedule and its implementation. (2) Response to remedial maintenance requirements.

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			(3) Satisfactory control of radiation dose. (4) Availability and effective use of resources. (5) Level of training and experience. (6) Adherence to quality assurance requirements. (7) Adequacy of procedures and instructions. (8) Effectiveness of the reviewing function within the program." Although the above list does not specifically include problems with components or system design, it could identify such problems. However, these types of problems should be part of the feedback to the design group in accordance with the requirements of Paragraph 903 (2). See Item (5) above. The propose Standard addresses the requirements of item (6).
3.g		(7) Performance indicators and criteria to be utilized to measure equipment, systems, and personnel effectiveness in maintenance activities.	Section 11.0, Surveillance, Review and Audit Program, in Paragraph 1105 [see item (6) above] requires an examination of the maintenance program. However, the required examination does not define or address the use of performance indicators or criteria used to measure equipment, systems, and personnel effectiveness. Paragraph 1105 item (4) requires the examination of the effective use of resources, but does not define how the effectiveness is measured. The Contractor must state how performance indicators and criteria are utilized to measure equipment, systems, and personnel effectiveness in the area of maintenance.
3.h		(8) Interfaces between maintenance and other organizations (e.g., involving operations, engineering, quality, and safety).	Paragraph 304 states in part "Plant management shall ensure that the maintenance group works in close coordination with such groups as operations, health physics, quality assurance, planning, fire protection, industrial safety and security." This commits the Contractor to have the necessary interfaces. The proposed Standard addresses the requirements of item (8).

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3.i		(9) Quantitative reliability target values for systems and components to start or run, when such values are credited in safety analysis.	The proposed Standard does not include reliability targets. However, as discussed in the evaluation of DOE/RL-96-0006, Section 4.2.7.1, below, the proposed Standard does discuss levels of reliability. To address this requirement, the Contractor must include a requirement to define quantitative reliability target values when such values are credited in safety analyses.
3.j		(10) Appropriate authorization is received before modification starts on a safety instrumented systems.	Paragraph 702 states in part "Modifications shall be planned and conducted in accordance with safety criteria 4.0-1 and 4.0-2 of the SRD." Safety Criterion 4.0-2 states in part "The procedures shall assure that the following considerations are addressed prior to any change: (1) .....(5) Authorization requirements for the proposed change." This requirement is addressed.
3.k		(11) Assessment of impact of the modification on the functionality of the safety instrumented system is performed, to ensure functionality is not impaired.	See item (10) above. Safety Criterion 4.0-2 also states "The procedures shall assure that the following considerations are addressed prior to any change: (1) The technical basis for the change: (2) Impact of change on safety and health; .....(5) Authorization requirements for the proposed change." Paragraph 702 also states "Therefore, the operation organization shall arrange for a first review of a proposed modification to ascertain if it affects safety. Where a proposed modification is judged to affect safety, a further independent review and assessment shall be carried out ..." Paragraph 707 states in part that "Proposals for modifications submitted by plant management for independent assessment shall comply with requirements specified by the operating organization in accordance with quality assurance requirements. The submissions shall specify the functional and safety requirements of the proposed modifications and show how these requirements are met." The requirements of item (11) are addressed.
4.	Safety Criterion 7.6-4	The maintenance program shall address each of the following elements:	

Item No.	SC/*Requirement or* Reference	*Requirement*	*Evaluation*
4.a		(1) Organization and administration	Section 2.0, Maintenance Program, and Section 3.0, Organization and Responsibilities for Maintenance, Section 4.0, Administrative Controls, and Section 8.0, Stores, adequately addresses organization and administration of the maintenance program.
4.b		(2) Maintenance training and qualification	Paragraphs 306 through 312 of the proposed Standard addresses maintenance training and qualification.
4.c		(3) Maintenance facilities, equipment, and tools	Section 5.0, Maintenance Facilities, addresses maintenance facilities, equipment, and tools.
4.d		(4) Types of maintenance	Paragraph 303 states in part "The maintenance group may be divided into mechanical, electrical, and control and instrumentation sections. This paragraph meets the commitment to address the types of maintenance.
4.e		(5) Maintenance procedures and other work related documents	Section 4.0, Administrative Controls, adequately addresses maintenance procedures and other work related documents.
4.f		(6) Planning, scheduling, and coordinating maintenance activities	Paragraphs 218 through 224 adequately addresses maintenance planning.
4.g		(7) Control of maintenance activities	Section 4.0, Administrative Controls, adequately addresses the control of maintenance activities.
4.h		(8) Post-maintenance testing	Paragraph 404 states in part " In developing the above procedures, account shall be taken of the interfaces between one maintenance activity and other activities such as maintenance on other systems or components, plant operations and radiation protection. In particular, the following aspects shall be explicitly covered: (1) ...(5) Ensuring that, after maintenance the structures, systems and components are inspected for correct operational state and, where necessary, tested by authorized persons before their normal operation is resumed." Paragraph 411 states "The content and format for a typical maintenance instruction should include the following: (1) ...(12) Operational testing: Any post-maintenance operational testing required to prove that the equipment is

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			functioning in the intended manner." Paragraph 606 states in part "When a defective item has been replaced, suitable functional or performance tests shall be carried out in conjunction with the operating personnel; ..." The requirements for Post-maintenance testing is adequately addressed.
4.i		(9) Procurement of parts, materials, and services	Section 8, Stores, adequately addresses the procurement of parts, materials, and services.
4.j		(10) Material receipt, inspection handling, storage, retrieving, and issuance	Section 8, Stores, adequately addresses material receipt, inspection, handling and issuance.
4.k		(11) Control and calibration of measuring and test equipment	Paragraph 202 states in part "The maintenance program covers all preventive and remedial measures both administrative and technical, necessary to perform maintenance activities satisfactorily. The range of activities includes servicing, overhaul, repair, and replacement of parts and, as appropriate, testing, calibration and inspection (including in-service inspection)." Paragraph 503 states in part "On-site or off-site facilities should include at least: (1) ...(2) Electrical shops (*i*) ...(*iv*) Instrument and relay testing and calibration facilities...(3) Control and instrument shops (*i*) ... (*ii*) Calibration and testing facilities for instruments and controls." The requirements for control and calibration of measuring and test equipment was addressed.
4.l		(12) Maintenance tools and equipment control	The proposed Standard does not address maintenance tools and equipment control. The Contractor must address this area.
4.m		(13) Documented facility condition inspections to identify and address aging effects	The proposed Standard does not address "Documented facility condition inspections to identify and address aging effects." The Contractor must address this area.
4.n		(14) Maintenance involvement with facility operations	Paragraph 304 states in part "Plant management shall ensure that the maintenance group works in close co-ordination with such groups as

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			operations, health physics, ..." The requirement of item (14) was adequately addressed.
4.o		(15) Maintenance history and trending	Section 9, Feedback of Experience, discusses collecting, evaluating, classifying, and recording abnormal events. Also, the retrievability of data and the transfer of records to other groups. Paragraph 1001 refers to "maintenance records such as equipment history cards..." However, maintenance history and trending are not specifically discussed. Therefore, the Contractor must address this area.
4.p		(16) Analysis of maintenance related problems	The proposed Standard does not address analysis of maintenance related problems. Therefore, the Contractor must address this area.
4.q		(17) Modification work	Section 701 adequately addresses modification work. This requirement is addressed.
5.	DOE/RL-96-0006 Rev. 1, Top-Level Radiological, Nuclear, and Process Safety Standards and Principles, Section 4.2.7.1, Reliability	4.2.7.1 Reliability. Reliability targets should be assigned to structures, systems, and components or functions important to safety. The targets should be consistent with the roles of the structures, systems, and components or functions in accident conditions. Provision should be made for appropriate testing and inspection of structures, systems, and components for which reliability targets have been set.	Paragraph 212 states in part "The frequency and extent of preventive maintenance shall be such to ensure that the level of reliability and effectiveness of the plant structures, systems, and components important to safety remains in accord with the design assumptions and intent, and that the safety status of the plant has not been adversely affected during the period since the commencement of operations." As defined in Paragraph 209, "Preventive maintenance entails pre-planned routine testing, inspection, servicing, and overhaul of structures, systems, and components." Paragraph 212 commits to a level of reliability that ensures the SSCs remain in accord with the design assumptions and intent and Paragraph 209 commits to a preventive maintenance schedule that will "ensure the continuing capability of the plant to perform its intended functions." These paragraphs do not speak of "reliability targets," but, do discuss level of reliability which is very similar. The requirements of 4.2.7.1 are addressed.

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6.	DOE/RL-96-0006, Rev. 1, Top-Level Radiological, Nuclear, and Process Safety Standards and Principles, Section 4.3.5.1, Operational Testing, Inspection, and Maintenance	4.3.5.1 Operational Testing, Inspection, and Maintenance. Structures, systems, and components important to safety should be the subject of appropriate, regular preventive maintenance, inspection and testing and servicing when needed, to ensure that they remain capable of meeting their design requirements throughout the life of the facility. Such activities should be carried out in accordance with written procedures supported by quality assurance measures.	Paragraph 201 states that "....the operating organization shall prepare a maintenance program for structures, systems, and components important to safety." Paragraph 202 states "The maintenance program covers all preventive and remedial measures both administrative and technical, necessary to perform maintenance activities satisfactorily. The range of activities includes servicing, overhaul, repair, and replacement of parts and, as appropriate, testing, calibration and inspection (including in-service inspection). It may also include modifications to structures, systems, and components." Paragraph 203 states in part that "The operating organization is responsible for establishing a program for preventive maintenance and remedial maintenance that will achieve design performance throughout the operational life of the plant." These three paragraphs (201, 202, and 203) address the requirement for SSCs to be the subject of appropriate, regular preventive maintenance, which includes inspection and testing and servicing to ensure design performance throughout the life of the facility. Paragraph 401 states in part "In order to implement the maintenance program and achieve the objective of safe reliable operation, plant management shall establish the required administrative controls. These controls will usually be in the form of administrative procedures, which will also include all administrative controls and requirements for carrying out maintenance on the plant." Paragraph 402 states "Administrative procedures for maintenance shall be sufficiently comprehensive to provide plant maintenance supervision with administrative guidance in all areas of maintenance." Although the Contractor may intend that all administrative controls be written, it is not clearly stated. However, Paragraph 406 does require "Maintenance that can affect the performance of items important to safety or potentially endanger the health and safety of personnel shall be pre-planned and performed in accordance with properly approved written procedures, instructions or drawings appropriate for the circumstances." This covers the procedures and instructions related to performing maintenance work. Therefore, the requirement for the procedures to be written is addressed. Safety Criterion 7.3-2 states in part "A written Quality Assurance

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			Program (QAP) shall be developed, implemented, and maintained. The QAP shall describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work." Safety Criterion 7.3-5 states in part "Work shall be performed to established technical standards and administrative controls using instructions, procedures, or other appropriate means." Safety Criterion 7.3-2 and 7.3-5 appear to be general enough to include regular preventive maintenance, inspection and testing, and servicing and therefore, these activities are "supported by quality assurance measures" as required by Safety Criterion 4.3.5. This is acceptable.
7.	DOE/RL-96-0006 Rev. 1, Top-Level Radiological, Nuclear, and Process Safety Standards and Principles, Section 5.2.7, Mechanical Integrity	5.2.7 Mechanical Integrity. The Contractor should implement a mechanical integrity program that includes written procedures, training for maintenance activities, inspection and performance testing of process equipment, and quality assurance measures. The program should include measures to correct deficiencies in equipment that are outside acceptable limits.	As discussed in item 6 (Section 4.3.5 above), written procedures are only specifically required in Paragraph 406, which are for the performance of maintenance, but may not apply to administrative controls. Section 5.2.7 requires that the program "includes written procedures." The Contractor must make a clear statement on which procedures will be written.
8.	BNFL-5193-QAP-01, Rev. 5, Quality Assurance Program and Implementation Plan [QAPIP], Section 5.3.2, Procedures, Codes of Practice, and Instructions	QAPIP Section 5.3.2, Procedures, Codes of Practice, and Instructions. Processes that affect quality shall be conducted under controlled conditions using approved instruction, procedures, codes of practice, checklists, and other appropriate means.	Section 4 of the proposed Implementing Standard for Maintenance does not clearly state that the procedures will be written. Paragraph 401 requires the establishment of administrative controls, but the statement "These controls will usually be in the form of administrative procedures, ..." falls short of requiring written procedures. Paragraphs 405 and 411 implies that the maintenance instructions will be written, but it is not stated. The Contractor needs to revise Paragraph 401 to make a clear statement that written procedures are required. For instance, the second sentence could state that the controls shall be in the form of written administrative procedures.